

## Module 4 : Differentiation and Bloom's Taxonomy

### Reading 1: Benjamin Bloom : Structure of Knowledge overview

*Conceptual Systems Theory*: describes a student's development gradually through interactions with information, interpersonal maturity and environmental conditions encountered.

Low conceptual students:

- Are more comfortable dealing with factual, recall knowledge.
- The degree of structure, organisation or control exerted by the teacher determines success for low conceptual students.
- Often respond to the adult world's promotion of expectations that fall neatly in stereotypes

High conceptual students:

- make use of all levels of knowledge, with such behaviour being exemplified by analysis, synthesis and evaluation activities.
- Students at higher conceptual levels profit more from low-structure or appear less affected by teacher structure.
- High conceptual level students work independently and autonomously.
- Willing to seek answers to questions.
- Favour competition with self.

When developing appropriate education objectives it is important to consider student conceptual level.

Taxonomy of Educational Objectives: Cognitive Domain

This scheme emphasises that learning is hierarchical with learning (objectives) at the highest level dependent on achievement of the lower level knowledge and skills first. Blooms levels low to high are:

1. **Knowledge**- remembering previously learned material.
2. **Comprehension** –being able to grasp the meaning of learned material
3. **Application**- use learned knowledge in new and concrete situations
4. **Analysis** – break material down into it's component parts so that it's organisational structure may be understood.
5. **Synthesis** – put parts together to form a new whole.
6. **Evaluation** – ability to judge the value of the material.

 = convergent     = divergent

### Reading 2: Learning Domains or Bloom's Taxonomy

There are three domains (categories) of educational activity:

- **Cognitive**: mental skills (Knowledge) – Bloom's Taxonomy
- **Affective**: growth in feelings or emotional areas (Attitude)

*The manner in how which we deal with things emotionally:*

- Receiving Phenomena: *Awareness, willingness to hear, selected attention.*
- Responding to Phenomena: *Active participation, attends and reacts to a particular phenomena, response.*
- Valuing : *The worth or value a personal attaches to a particular object, phenomenon, or behaviour.*
- Organisation: *organises values, emphasis on comparing, relating and synthesising values.*
- Internalising values: *value system that controls behaviour*
- **Psychomotor:** manual or physical skills (Skills)
  - Perception: *The ability to use sensory cues to guide motor activity.*
  - Set: *Readiness to act.*
  - Guided Response: *The early stages in learning that include imitation, trial and error.*
  - Mechanism: *The intermediate stage in learning a skill. Learned responses are habitual, some confidence and proficiency.*
  - Complex overt response: *The skilful performance of motor acts that involve complex movement patterns.*
  - Adaptation: *Skills are well developed and the individual can modify patterns to fit special requirements.*
  - Organisation: *Creating new movement patterns to fit a particular situation or specific problem.*

Or KSA (Knowledge, Skills and Attitude), goals of the training process.

### Reading 3: Creating a reading contract

Example

### Reading 4: Using Bloom's Taxonomy for multiplication facts

Example